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09/534,038, filed March 24, 2000, and BLOOD FLOW CONDUIT DELIVERY SYSTEM
AND METHOD OF USE, U.S. Application No. 09/368,644, filed August 4, 1999, and
U.S. Patent Nos. 6,261,304, 5,429,144 and 5,662,124, the disclosures of which are all
hereby incorporated by reference in their entirety.

IN THE CLAIMS:

Please cancel claim 1 and add the following new claims 35-53:

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35. (New) A method of flowing blood from a heart chamber to a coronary
vessel, the method comprising:
providing a conduit with a first end and a second end;
providing a natural valve;
placing the conduit within a heart wall such that the first end of the conduit is
open towards the heart chamber and the second end is open towards the blood vessel;
and
during diastole, restricting a flow of blood from the coronary vessel to the heart
chamber via the natural valve.

36. (New) The method of claim 35, wherein providing the natural valve
includes providing the natural valve inside the conduit.

37. (New) The method of claim 35, wherein providing the natural valve includes providing a section of blood vessel containing at least one naturally occurring valve.

38. (New) The method of claim 37, wherein the section of blood vessel is a human vein.

39. (New) The method of claim 37, wherein the section of blood vessel is an autograft.

40. (New) The method of claim 37, wherein the section of blood vessel is an allograft.

41. (New) The method of claim 37, wherein the section of blood vessel is a xenograft.

42. (New) The method of claim 35, wherein the heart chamber is a left ventricle.

43. (New) The method of claim 35, wherein the coronary vessel is a coronary artery.

44. (New) A bypass system for implantation in a body of a patient, the system comprising:

a tube having a first end and a second end and being configured to be implanted in a heart wall such that the first end is open towards a heart chamber and the second end is open towards a coronary vessel, the tube being further configured to permit blood to flow therethrough from the heart chamber to the coronary vessel; and

a natural valve configured to restrict blood flow from the coronary vessel to the heart chamber during diastole.

45. (New) The system of claim 44, wherein the natural valve is disposed inside the tube.

46. (New) The system of claim 44, wherein the natural valve includes a section of blood vessel containing at least one naturally occurring valve.

47. (New) The system of claim 46, wherein the section of blood vessel lines an interior of the tube.

48. (New) The system of claim 46, wherein the section of blood vessel is a human vein.

49. (New) The system of claim 46, wherein the section of blood vessel is an autograft.

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